Apple II
Technical Notes

Developer Technical Support

Apple IIc
#9:   Detecting VBL

Written by: Dan Strnad   November 1990

This Technical Note describes how the `VBLInt` flag at $C019 behaves differently than documented in the *Apple IIc Technical Reference Manual*, Second Edition, when being polled.

The *Apple IIc Technical Reference Manual*, Second Edition, claims that reading $C019 reads and resets the `VBLInt` flag. This is not correct. After reading $C019 once the high bit has been set to flag VBL, the high bit remains set. A program polling VBL at $C019 would have to access either `PTrig` at $C070 or `RdIOUDis` at $C07E to reset the high-bit for $C019. Note that `IOUDis` must have been turned off by writing to $C07F then `ENVBL` accessed at $C05B in order to poll for $C019 on the IIc.

Developers are encouraged to detect VBL using an interrupt handler with one of the VBL-based mouse modes on the IIc, if possible.

Further Reference
- *Apple IIc Technical Reference Manual, Second Edition*